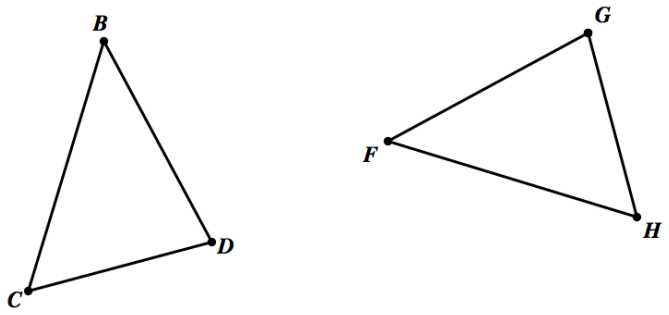
Geometry – Congruent Triangles **Name** _____
12a Homework: Corresponding Parts of Congruent Triangles **Pd** _____ **Date** _____

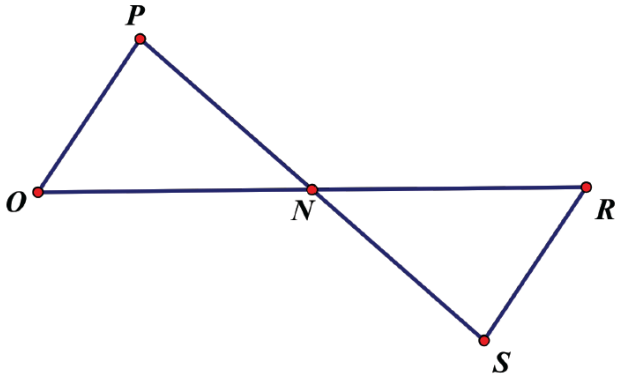
1. For the figures shown to the right, $\Delta BCD \cong \Delta FHG$.



A. List all pairs of congruent parts.

B. Given that $m\angle D = 4y + 12$ and $m\angle C = 5y - 8$ and $m\angle F = 6y - 34$, set-up an appropriate equation. Then, solve your equation and use your solution to determine the measures of all angles of both triangles.

2. In the diagram below, $\Delta PNO \cong \Delta SNR$.



A. If $PN = 7$, what segment must also have a length of 7 units?

B. If $SR = 13.5$, what segment must also have a length of 13.5 units?

C. If $m\angle P = 84°$, what other angle must also have a measure of 84°?

D. If $m\angle PNO = 7x + 20$ and $m\angle RNS = 13x - 4$, determine the measure of both angles.